said insulating film, said portion to become at least a channel region;

crystallizing [a] said semiconductor film [comprising amorphous silicon];

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film, said gate electrode having tapered side edges; and

forming source and drain regions in said semiconductor film by ion doping.

6. (Amended) A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film comprising amorphous silicon on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film though said insulating film, said portion [being] to become at least a channel region;

crystallizing said semiconductor film;

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film; and

forming source and drain regions in said semiconductor film by ion doping.

12. (Amended) A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film comprising amorphous silicon on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film though said insulating film, said portion [being] to become at least a channel region;

crystallizing said semiconductor film;

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film, said gate electrode having tapered side edges; and

forming source and drain regions in said semiconductor film by ion doping through said gate insulating film.

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18. (Amended) A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film comprising amorphous silicon on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion [being] to become at least a channel region;

crystallizing said semiconductor film by laser irradiation; [and]

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film, said gate electrode having tapered side edges; and

forming source and drain regions in said semiconductor film by ion doping.

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23. (Amended) A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film comprising amorphous silicon on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film though said insulating film, said portion [being] to become at least a channel region;

crystallizing said semiconductor film by laser irradiation;

removing said insulating film;

forming a gate insulating film on said semiconductor film;

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forming a gate electrode on said gate insulating film; and

forming source and drain regions in said semiconductor film by ion doping which is performed through said gate insulating film.

Amt E4

29. (Amended) A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film comprising amorphous silicon on an insulating surface;

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forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion [being] to become at least a channel region;

crystallizing said semiconductor film by laser irradiation;

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film; and

forming source and drain regions in said semiconductor film by ion doping.

Please add new claims as follows:

Amt E6

--34. A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion to become at least a channel region;

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removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film; and

forming source and drain regions in said semiconductor film by ion doping.

35. A method according to claim 34 wherein said source and drain regions are formed by said ion doping with at least one of phosphorus and boron.

36. A method according to claim 34 wherein said semiconductor film has a thickness of 50 to 150 nm.

37. A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion to become at least a channel region;

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film, said gate electrode having tapered side edges; and

forming source and drain regions in said semiconductor film by ion doping.

38. A method according to claim 37 wherein said source and drain regions are formed by said ion doping with at least one of phosphorus and boron.

39. A method according to claim 37 wherein said semiconductor film has a thickness of 50 to 150 nm.

40. A method according to claim 37 wherein said forming said gate electrode is performed by a wet etching.

41. A method for fabricating a semiconductor device, comprising the steps of:

forming a semiconductor film on an insulating surface;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through

said insulating film, said portion to become at least a channel region;

removing said insulating film;

forming a gate insulating film on said semiconductor film;

forming a gate electrode on said gate insulating film;

forming source and drain regions in said semiconductor film by ion doping through said gate insulating film.

42. A method according to claim 41 wherein said source and drain regions are formed by said ion doping with at least one of phosphorus and boron.

43. A method according to claim 41 wherein said semiconductor film has a thickness of 50 to 150 nm.

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44. A method according to claim 1 wherein said insulating film has a thickness of 10-500 nm.

45. A method according to claim 6 wherein said insulating film has a thickness of 10-500 nm.

46. A method according to claim 12 wherein said insulating film has a thickness of 10-500 nm.

47. A method according to claim 18 wherein said insulating film has a thickness of 10-500 nm.

48. A method according to claim 23 wherein said insulating film has a thickness of 10-500 nm.

49. A method according to claim 29 wherein said insulating film has a thickness of 10-500 nm.

50. A method according to claim 34 wherein said insulating film has a thickness of 10-500 nm.

51. A method according to claim 37 wherein said insulating film has a thickness of 10-500 nm.

52. A method according to claim 41 wherein said insulating film has a thickness of 10-500 nm.

53. A method for fabricating a semiconductor device, said semiconductor device having at lest one thin film transistor comprising a semiconductor film formed adjacent to a gate electrode with a gate insulating film therebetween, said method comprising the steps of:

forming said semiconductor film over a substrate;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion becoming at least a channel region of said thin film transistor; and

removing said insulating film

54. A method according to claim 53, wherein said semiconductor film has a thickness of 50 to 150 nm.

55. A method for fabricating a semiconductor device, said semiconductor device having at least one thin film transistor comprising a semiconductor film formed adjacent to a gate electrode with a gate insulating film therebetween, said method comprising the steps of:

forming said semiconductor film over a substrate;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion becoming at least a channel region of said thin film transistor;

removing said insulating film; and

forming source and drain regions in said semiconductor film by ion doping.

56. A method according to claim 55, wherein said semiconductor film has a thickness of 50 to 150 nm.

57. A method according to claim 55, wherein said source and drain regions are formed by said ion doping with at least one of phosphorus and boron.

58. A method for fabricating a semiconductor device, said semiconductor device having at least one thin film transistor comprising a crystalline semiconductor film formed adjacent to a gate electrode with a gate insulating film therebetween, said method comprising the steps of:

forming a semiconductor film comprising amorphous silicon over a substrate;

forming an insulating film on said semiconductor film;

introducing boron into at least a portion of said semiconductor film through said insulating film, said portion becoming at least a channel region of said thin film transistor;

crystallizing said semiconductor film;

removing said insulating film; and

forming source and drain regions in the crystalline semiconductor film by ion doping.

59. A method according to claim 58, wherein the crystallizing step is performed by a laser irradiation.

60. A method according to claim 58, wherein said semiconductor film has a thickness of 50 to 150 nm.

61. A method according to claim 58, wherein said source and drain regions are formed by said ion doping with at least one of phosphorus and boron.